

Intertrochanteric fracture

What you're feeling

An intertrochanteric fracture is a break in the upper part of your thigh bone, just below the hip ball. It happens in the wide part of the bone where two rows of muscle attach. These breaks make up 40% to 50% of all hip fractures.

The pain sits deep in your hip and the top of your thigh, often spreading toward your groin or the side of your hip. Standing, walking, and taking your weight through that leg usually make it worse. Lying still tends to ease it, though many people find the pain flares at night or when they first wake and try to move. Getting out of bed or a chair, stepping into the shower, and climbing stairs become hard because your hip won't take your weight smoothly. You may not be able to walk at all without help.

Most of these fractures happen after a fall, but some develop slowly. If your bones are thin (a condition called osteoporosis), the bone can crack under ordinary load before any fall. These stress-type breaks are easy to miss on plain X-rays, and sometimes a scan is needed to see them clearly.

Swelling and bruising around the hip are common. Your leg may look shorter or turned outward, because the broken bone can no longer hold the limb in line.

The hip is close to large blood vessels, and these fractures can lose more blood than you might expect, which can leave you feeling washed out or dizzy. If you are older or have heart or memory problems, your general health matters as much as the break itself in how you recover.

If you cannot stand or put weight on your leg after a fall or a stumble, arrange to be seen straight away.

What's actually happening

Your hip is a ball-and-socket joint. The ball sits at the top of your thigh bone, and just below it the bone narrows into a neck before widening out again. The two bumps on that wide part are called trochanters. They are the anchor points where your hip muscles attach. An intertrochanteric fracture is a break in the bone between those two bumps.

This part of the bone is outside the hip joint capsule, and it has a rich blood supply. That matters in two ways. The fracture can bleed more than you might expect, which explains the washed-out feeling described above. It

also means this area usually heals well once the pieces are held in the right position, because plenty of blood reaches the break.

When the bone breaks, the muscles attached to those bumps keep pulling on the pieces. One set of muscles pulls the bone up and outwards, another pulls it down and inwards. The result is that the broken ends slide out of line, which is why your leg may look shorter or turned outward. The amount the bone is out of place depends on how much force went through it. A break where a large piece of bone stays attached to the lower bump tends to take longer to settle than one where that piece stays in place, though that difference fades with time.

Most of these breaks happen when a fall drives your full body weight through the top of the thigh bone. If your bones are thin from osteoporosis, the inner scaffolding of the bone is weaker, so ordinary loading can crack it without any fall at all.

Because the break sits outside the joint itself, the smooth cartilage surface of the hip is usually not damaged. The problem is the broken bone and the pulling muscles around it, not the joint surface.

What we can do about it

Dr Kieran Hirpara, an upper-limb surgeon at Mater Private Hospital Rockhampton, matches the treatment to your specific injury. Patients are generally referred to our clinic by their GP; if a physiotherapist has suggested you see us, you will still need a referral from your GP in order to be eligible for the Medicare rebate. A clinic assessment, including your history, an examination and imaging where needed, establishes the diagnosis.

Most intertrochanteric fractures need surgery, and we usually recommend it soon after the injury. Before the operation, X-rays of your hip show where the bone is broken and how far the pieces have moved. If the X-rays don't give enough detail, a CT scan can map the break in three dimensions and help plan the repair. If we suspect a hidden crack that plain X-rays miss, an MRI scan can show it clearly.

Surgery holds the broken bone in the right position while it heals, so your hip muscles can work again and you can put weight on your leg. The most common option is a metal nail placed down the centre of your thigh bone, with a screw that grips the ball end and lets it slide and settle as the bone knits. For some stable breaks, a plate and screws on the outside of the bone works just as well and tends to lose less blood during surgery. The choice depends on your fracture pattern, your bone quality and your general health. If the break is badly out of place and your bones are thin, or you are over 75, we may discuss replacing part of the hip joint instead of pinning it. We will explain which option suits you and decide together.

Your general health matters as much as the break. We work with your GP and other doctors to manage medical conditions such as heart or lung disease before and after surgery, and we treat thin bones with osteoporosis medicine where that is appropriate. This team approach helps lower the risk of complications and shortens your hospital stay.

A few situations allow other paths. If surgery carries too much risk for you, the break can sometimes be managed without an operation, though this needs careful nursing care and a long period of staying off the leg. Some older fractures that were never treated can still be helped with a smaller, minimally invasive procedure. If earlier surgery has failed, further operations can usually rebuild the hip.

One-year mortality rates after this type of hip fracture are between 10% and 30%. Your age, your health before the injury and how well you were moving beforehand all shape where you land in that range. Prompt surgery and shared care aim to keep those risks down.

What to expect

These fractures usually heal well, because the break sits in a part of the thigh bone with a rich blood supply. Once the pieces are held in place, the bone knits and your hip muscles can start working again. Most people notice the pain settles well before their strength and walking return to normal.

Recovery takes time, and it is honest to say so. Walking ability and everyday tasks such as dressing and bathing often take a clear step backwards after this injury. Some people need a longer stretch of rehabilitation than others, particularly if the break was badly out of place or your general health was already strained. The difference between a smoother and a harder recovery tends to fade over time. Hip pain is usually not the main problem afterwards. The bigger challenge is getting your walking and independence back.

Your overall health shapes your outlook as much as the break itself. Age, heart failure, memory problems, thin bones and low blood protein all influence how the next year goes. If you have several medical conditions at once, recovery is harder and the risks are higher. This is why we treat the whole person, not just the bone.

If the fracture is left alone, the outlook is poor. The broken ends keep sliding out of line under the pull of your hip muscles, and the bone cannot hold your weight. Good results cannot be achieved with traction alone, so a long period off the leg without surgery does not lead to healing in a usable position.

When surgery goes ahead, most fractures unite and the metal stays put. A small number of people need a further operation, and if the first repair fails, the hip can usually be rebuilt with a joint replacement. That second operation is more involved than the first, but the results are generally satisfactory and most implants stay in place for years afterwards.

Set realistic goals. Expect steady progress over weeks and months rather than a quick fix, expect good days and flat days, and expect your care team to keep working with you well after the bone has knitted.

When to see someone

Go to an emergency department straight away if you cannot stand or put weight through your leg after a fall, or if your leg looks shorter or turned outward. These breaks need same-day assessment. Ask for urgent review if you feel washed out or dizzy, which can mean the hip is losing blood inside. See your GP promptly if pain after a fall is not settling, especially if your bones are thin, since some of these cracks barely show on plain X-rays. If you have already had surgery and develop new hip pain, increasing weakness or trouble walking, ask for a specialist review. If you have several medical conditions such as heart failure or memory problems, tell the treating team early, because your general health shapes your recovery as much as the break does.